Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Original) A pharmaceutical composition comprising an agent effective to elicit an immunogenic response to alpha-synuclein and an adjuvant.

2. (Original) The pharmaceutical composition of claim 1, wherein the agent is alpha-synuclein or an immunogenic fragment thereof.

3. (Original) The pharmaceutical composition of claim 2, wherein the agent is alpha-synuclein.

4. (Original) The pharmaceutical composition of claim 2, wherein the agent is immunogenic alpha-synuclein fragment.

5. (Original) The pharmaceutical composition of claim 4, wherein the agent is NAC.

6. (Original) The pharmaceutical composition of any one of claims 1-5, wherein the agent is linked to a carrier molecule to form a conjugate.

7. (Original) The pharmaceutical composition of any one of claims 1-5, further comprising a pharmaceutically acceptable adjuvant.

8. (Original) The pharmaceutical composition of claim 7, wherein said adjuvant is selected from the group consisting of QS21, monophosphoryl lipid, alum and Freund's adjuvant.

9. (Original) A pharmaceutical composition comprising an agent effective to elicit an immunogenic response against an alpha-synuclein component of an amyloid plaque in a patient.

10. (Original) The pharmaceutical composition of claim 9, wherein the agent is alpha-synuclein or an immunogenic alpha-synuclein fragment.

11. (Original) The pharmaceutical composition of claim 9, wherein the agent is alpha-synuclein.

12. (Original) The pharmaceutical composition of claim 9, wherein the agent is an immunogenic alpha-synuclein fragment.

13. (Original) The pharmaceutical composition of claim 12, wherein the immunogenic alpha-synuclein fragment is NAC.

14. (Original) The pharmaceutical composition of claim 9, wherein the agent is an antibody or fragment thereof specifically binds or an alpha-synuclein component of an amyloid plaque.

15. (Original) A pharmaceutical composition comprising an antibody that specifically binds alpha-synuclein or a fragment thereof and a pharmaceutically acceptable carrier.

16. (Original) The pharmaceutical composition of claim 15, wherein the antibody specifically binds alpha-synuclein.

17. (Original) The pharmaceutical composition of claim 15, wherein the antibody specifically binds an alpha-synuclein fragment.

18. (Original) The pharmaceutical composition claim 15, wherein the antibody is a humanized antibody.

19. (Original) The pharmaceutical composition claim 15, wherein the antibody is human.

20. (Original) The pharmaceutical composition claim 18 or 19, wherein the antibody is an antibody of human IgG1 isotype.

21. (Original) The pharmaceutical composition claim 15, wherein the antibody is a monoclonal antibody.

22. (Original) The pharmaceutical composition of claims 15, wherein the antibody is a polyclonal antibody.

23. (Original) The pharmaceutical composition claim 15, wherein the antibody is prepared from a human immunized with alpha-synuclein peptide.

24. (Original) A pharmaceutical composition for preventing or treating a disease characterized by an amyloid deposit in a patient, comprising an effective dosage of an antibody or antibody fragment that specifically binds to an amyloid component present in said deposit, wherein the amyloid component is a alpha-synuclein or a fragment thereof.

25. (Original) The pharmaceutical composition of claim 24, wherein the synuclein fragment is NAC.

26. (Original) The pharmaceutical composition of claim 25, wherein the antibody specifically binds to a synuclein fragment without binding to alpha-synuclein (SEQ ID NO: 1).

27. (Original) The pharmaceutical composition of claim 24, wherein said effective dosage is characterized by an amount of antibody or antibody fragment effective to produce a level in the patient serum of immunoreactivity against the amyloid component that is at least about four times higher than a serum level of immunoreactivity against the component measured in a pre-treatment control serum sample.

28. (Original) The pharmaceutical composition of claim 24, wherein the pharmaceutical composition includes a carrier.

29. (Original) The pharmaceutical composition of claim 24, wherein the pharmaceutical composition is formulated for administration intraperitoneally, orally, subcutaneously, intramuscularly, intranasally, topically or intravenously.

30. (Original) The pharmaceutical composition of claim 24, wherein said pharmaceutical composition is formulated as a sustained release composition.

31. (Previously presented) A method of inhibiting the aggregation of α-synuclein in a mammalian cell or tissue, comprising adding to said cell or tissue a high affinity single chain antibody fragment that specifically binds to α-synuclein with a binding affinity of at least
10^8 M^{-1}.

32. (Previously presented) The method of claim 31, wherein the binding affinity of at least 10^9 M^{-1}.

33. (Previously presented) The method of claim 31, wherein the binding affinity of at least 10^{10} M^{-1}.

34. (Previously presented) The method of any one of claims 31-33, comprising administering the antibody fragment to a subject suspected of having Parkinson's disease, wherein the antibody fragment will inhibit the aggregation of the α-synuclein.

35. (Previously presented) A composition comprising one or more high affinity antibody fragments that specifically bind with α-synuclein in admixture with a pharmaceutically acceptable medium, wherein the antibody fragment, or fragments, specifically binds to α-synuclein with a binding affinity of at least 10^8 M^{-1}.

36. (Previously presented) The method of claim 35, wherein the binding affinity of at least 10^9 M^{-1}.

37. (Previously presented) The method of claim 35, wherein the binding affinity of at least 10^{10} M^{-1}.

38. (New) An isolated polypeptide or peptide selected from the group consisting of:

(A) an immunogenic polypeptide of SEQ ID NO:1 comprising at least one conservative or non-conservative amino acid residue substitution;

(B) a peptide comprising an epitope from the N-terminus of SEQ ID NO:1, alone or joined at its N-terminus and/or C-terminus to a polymeric amino acid sequence; and

(C) a peptide comprising an epitope at or near the C-terminus of SEQ ID NO: 1, alone or joined at its N-terminus and/or C-terminus to a polymeric amino acid sequence.

39. (New) The isolated polypeptide or peptide of claim 38, wherein all residues are D-amino acid residues.

40. (New) The isolated polypeptide or peptide of claim 38, which is a polypeptide of SEQ ID NO:1 comprising at least one conservative or non-conservative amino acid residue substitution.

41. (New) The isolated polypeptide or peptide of claim 38, which is a peptide comprising an epitope from the N-terminus of SEQ ID NO:1, alone or joined at its N-terminus and/or C-terminus to a polymeric amino acid sequence.

42. (New) The isolated polypeptide or peptide of claim 38, which is a peptide comprising an epitope at or near the C-terminus of SEQ ID NO: 1, alone or joined at its N-terminus and/or C-terminus to a polymeric amino acid sequence.

43. (New) The isolated polypeptide or peptide of claim 42, wherein the peptide comprises SN 70-140 or 100-140 residues of SEQ ID NO: 1.

44. (New) A conjugate of the polypeptide or peptide of claim 38 cross-linked to a polymer molecule.

45. (New) The conjugate of claim 44, wherein said polymer molecule is a peptide comprising a promiscuous T helper cell epitope.

46. (New) An immunizing composition, comprising an immunizing effective amount of the polypeptide or peptide of claim 38 or a conjugate thereof, and a pharmaceutically acceptable carrier, excipient, diluent, adjuvant, or auxiliary agent.

47. (New) A method for inducing an immune response to alpha synuclein and Lewy bodies, comprising administering to a human subject in need thereof either the immunizing composition of claim 46.

48. (New) A method of reducing amyloidosis, comprising administering the immunizing composition according to claim 46 to a subject in need thereof, thereby reducing amyloidosis.

49. (New) A molecule which includes the antigen-binding portion of an antibody raised against the polypeptide or peptide of claim 38.

50. (New) The molecule of claim 49 which is selected from the group consisting of a monoclonal antibody, a single chain antibody, and a humanized antibody.

51. (New) A pharmaceutical composition, comprising the molecule of claim 49 and a pharmaceutically acceptable carrier, diluent, excipient or auxiliary agent.

52. (New) A method for reducing the formation of Lewy bodies, comprising administering the molecule of claim 49 to a human subject in need thereof.

53. (New) A method of reducing amyloidosis, comprising administering the pharmaceutical composition according to claim 51, thereby reducing amyloidosis.